ACIDIC PRECIPITATION IN ONTARIO STUDY

ANNUAL STATISTICS OF CONCENTRATION AND DEPOSITION DAILY PRECIPITATION AND AIR MONITORING NETWORK 1987

MAY 1990

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1987

Report prepared for:
Air Resources Branch
Ontario Ministry of the Environment

Report prepared by:
A.P.I.O.S. Coordination Office
Ontario Ministry of the Environment

MAY 1990

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This report was prepared by Diane Green and Joe Lam of the APIOS Atmospheric Deposition and Chemistry Program. However, the data themselves are a product of the combined efforts of many individuals. Collection of air filter samples was coordinated by Bill Trayling (in Northeastern Region), Steve Elliott (in Southeastern Region), Scott Kennedy (in Southwestern Region), Wim Smits (in Northwestern Region) and J.P. Varto (in Central Region). Sample handling was carried out by Sue Lampinen and Celine Audette. Chemical analyses were performed at the Laboratory Services and Applied Research Branch under the coordination of Frank Tomassini. Data entry was performed by Diana Rhodes and co-ordination of data entry and records management by Peter Maheras. Joe Lam provided invaluable assistance with systems development. Data validation and overall systems management was performed by Diane Green. All enquiries regarding the reported data should be directed to Neville Reid, Co-Ordinator, Atmospheric Deposition and Chemistry Program (416) 326-1691.

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PART I

INTRODUCTION

INTRODUCTION

This report was prepared by Diane Green. The statistical summaries presented in this report pertains to the 1987 analytical results obtained from Acidic Precipitation in Ontario Study (APIOS) daily precipitation and air monitoring network. The relevant data can be obtained on request from the Air Resources Branch of the Ministry. All available data are utilized in the calculations except results reported as being unreliable (i.e. results are identified as unreasonable values by using the validation procedures; detailed description of the validation procedures is available from the Ministry upon request) or approximate (i.e., inexact results are reported due to laboratory difficulties, such as may be encountered in calibration, or when the sample cannot be re-analyzed to confirm the reported values). In a very few cases, concentration levels exceeded the upper limit of the range of the chemical analysis. Rather than using the upper limit, a decision was made to exclude these values from the statistics generated in this report. If a reported vale is labelled as $<W$, it is replaced by a "zero". W is the level which the analytical technique cannot distinguish from zero. Prior to 1986, if a level was recorded less than the detection limit T, a value corresponding to one half the detection limit is utilized for statistical calculations as reported in the statistical summaries. These values are no longer halved. Note that T is normally about ten times W, and values above the T criterion are considered to be precise and accurate. W corresponds to approximately one standard deviation of low level duplicates of real samples.

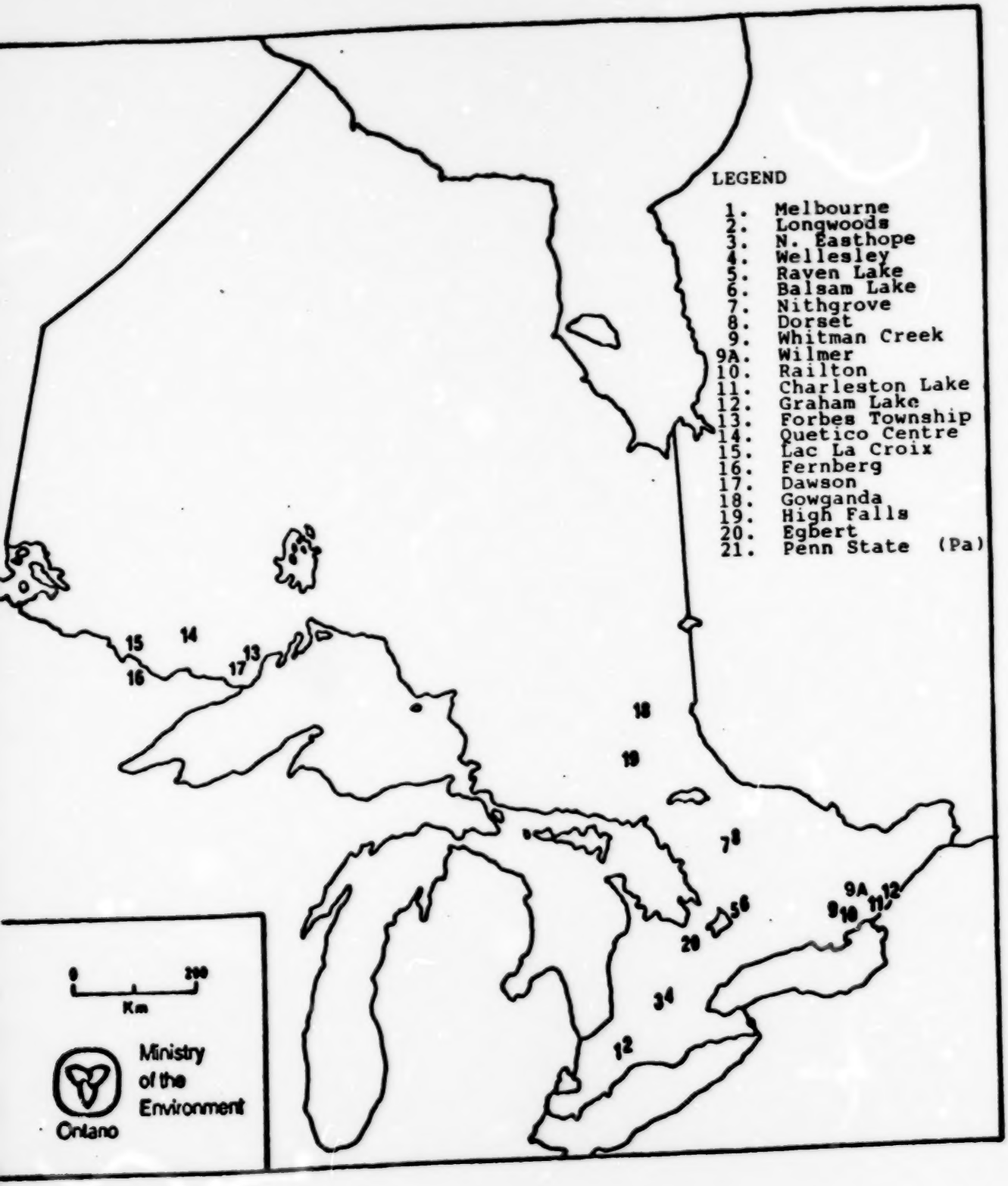
The reported precipitation gauge depth (standard rain gauge or nipher shielded snow gauge) is utilized in the calculation of deposition. If a rain gauge value is not available then the collection sample volume is converted to its equivalent precipitation depth and is used in the deposition calculation.

In the air concentration statistical summaries, "Nitric" represents "Nitric Acid" and "Total NO_3" represents total nitrates calculated by the summation of particulate "Nitrate" and "Nitric Acid". The air filter measurement for sulphur dioxide includes a contribution from filter measurement for sulphur dioxide includes a contribution from nylon-filter impregnated SO_4. In these reports the sulphur on nylon filter is interpreted as sulphur dioxide. However, it is possible that organic sulphur compounds also contribute to this loading. Methods do not currently exist to quantify this contribution in routine network operation.

The statistical summaries presented in Parts III to VII include the number of samples, mean (arithmetic/geometric), standard deviation (arithmetic/geometric), maximum, minimum and quartiles and volume weighted means using precipitation gauge depths where appropriate.

PART II

STATION DESCRIPTION AND LOCATION MAP


LEGEND
1. Melbourne
2. Longwoods
3. N. Easthope
4. Wellesley
5. Raven Lake
6. Balsam Lake
7. Nithgrove
8. Dorset
9. Whitman Creek
9A. Wilmer
10. Railton
11. Charleston Lake
12. Graham Lake
13. Forbes Township
14. Quetico Centre
15. Lac La Croix
16. Fernberg
17. Dawson
18. Gowganda
19. High Falls
20. Egbert
21. Penn State (Pa)
0
200
Km
Ministry of the Environment
Ontario

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS-ACIDIC PRECIPITATION IN ONTARIO STUDY
DAILY PRECIPITATION SITES

STATION ID	MOE REGION	STATION NAME	ELEV (M)	LATITUDE (NORTH)	LONGITUDE (WEST)	UTM GRID CO-ORDINATES (NORTHING)	(EASTING)
000002-02-01-1011	SOUTHWESTERN	LONGWOODS	239	42°53'03"	81°28'50"	4747849	460756
000002-02-01-1021	SOUTHWESTERN	MELBOURNE	213	42°47'12"	81°33'27"	4737061	454401
000002-02-01-1031	SOUTHWESTERN	NORTH EASTHOPE	375	43°24'22"	80°53'45"	4805705	508434
000002-02-01-2011	SOUTHWESTERN	WELLESLEY	344	43°28'05"	80°45'33"	4812606	519481
000002-02-01-2031	SOUTHWESTERN	EGBERT	253	44°13'57"	79°46'53"	4898202	597322
000002-02-01-3011	CENTRAL	DORSET	320	45°13'25"	78°55'51"	5009657	662451
000002-02-01-3021	CENTRAL	NITHGROVE	325	45°12'03"	78°04'12"	5009221	730127
000002-02-01-3031	CENTRAL	BALSAM LAKE	259	44°37'45"	78°51'22"	4943776	670063
000002-02-01-3041	CENTRAL	RAVEN LAKE	274	44°36'40"	78°54'43"	4941655	665686
000002-02-01-4011	SOUTHEASTERN	CHARLESTON LAKE	92	44°29'50"	76°02'40"	4927414	416963
000002-02-01-4021	SOUTHEASTERN	RAILTON	152	44°22'34"	74°34'45"	4913518	533527
000002-02-01-4031	SOUTHEASTERN	GRAHAM LAKE	130	44°34'50"	76°51'45"	4940930	749090
000002-02-01-4081	SOUTHEASTERN	GOLDEN LAKE	160	45°36'48"	77°12'03"	053226	328397
000002-02-01-4101	SOUTHEASTERN	WILMER	125	44°26'23"	76°31'50"	4921637	378195
000002-02-01-5061	NORTHEASTERN	GOWGANDA	343	47°39'04"	80°46'32"	5277329	516647
000002-02-01-5171	NORTHEASTERN	HIGH FALLS	215	46°22'55"	81°32'43"	5136412	458068
000002-02-01-6051	NORTHWESTERN	FERNBERG	506	47°56'51"	91°29'26"	5311349	612714
000002-02-01-6071	NORTHWESTERN	QUETICO CENTRE	420	48°24'44"	91°12'08"	5363461	633036
000002-02-01-6131	NORTHWESTERN	DAWSON	381	48°33'38"	89°38'60"	5381779	304475
000002-02-01-7011	QUEBEC	SUTTON	243	45°04'35"	72°40'35"	4993846	682898
000002-02-01-7021	PENNSYLVANIA	PENN. STATE	120	40°47'18"	77°56'47"	4519229	251390

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS-ACIDIC PRECIPITATION IN ONTARIO STUDY
DAILY AMBIENT AIR SITES

STATION ID	MOE REGION	STATION NAME	ELEV (M)	LATITUDE (NORTH)	LONGITUDE (WEST)	UTM GRID CO-ORDINATES (NORTHING)	(EASTING)
000002-21-21-1011	SOUTHWESTERN	LONGWOODS	239	42°53'03"	81°28'50"	4747849	460756
000002-21-21-2011	SOUTHWESTERN	WELLESLEY	344	43°28'05"	80°45'33"	4812606	519481
000002-21-21-2031	SOUTHWESTERN	EGBERT	253	44°13'57"	79°46'53"	4898202	597322
000002-21-21-3011	CENTRAL	DORSET	320	45°13'25"	78°55'51"	5009656	662429
000002-21-21-3031	CENTRAL	BALSAM LAKE	259	44°37'45"	78°51'22"	4943776	670063
000002-21-21-4011	SOUTHEASTERN	CHARLESTON LAKE	92	44°29'50"	76°02'40"	4927414	416963
000002-21-21-5061	NORTHEASTERN	GOWGANDA	343	47°39'04"	80°46'32"	5277329	516647
000002-21-21-5171	NORTHEASTERN	HIGH FALLS	215	46°22'55"	81°32'43"	5136412	458068
000002-21-21-6051	NORTHWESTERN	FERNBERG	506	47°56'51"	91°29'26"	5311349	612714
000002-21-21-7021	PENNSYLVANIA	PENN. STATE	120	40°47'18"	77°56'47"	4519229	251390

PART III

SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY STATION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM #06

PERIOD OF REPORT : JAN 2,87 TO DEC 25,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	128	117	89	124	124	124	122
MAXIMUM	38.2	98.6	6.9	7.0	0.6026	0.7650	30.20
MINIMUM	0.1	2.5	3.4	3.2	0.0001	0.0164	0.20
RANGE	38.1	96.1	3.4	3.8	0.6025	0.7486	30.00
ARITH. MEAN	5.8	29.2	4.4	4.5	0.0613	0.0971	3.54
ARITH. STD. DEV	6.8	20.6	0.5	0.7	0.0801	0.1111	4.21
GEOM. MEAN	2.7	22.5	4.3	4.5	0.0306	0.0690	2.21
1ST QUARTILE	1.2	14.7	4.1	4.2	0.0209	0.0427	1.20
2ND QUARTILE	3.7	25.2	4.3	4.4	0.0389	0.0658	2.27
3RD QUARTILE	7.1	38.1	4.5	4.7	0.0676	0.1035	4.45
VOL. WGT. MEAN	******	26.0	******	******	0.0480	0.0874	2.76

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	122	120	122	120	120	119	123
MAXIMUM	4.950	6.200	1.900	0.585	0.390	0.490	3.400
MINIMUM	0.010	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	4.940	6.200	1.900	0.585	0.390	0.490	3.400
ARITH. MEAN	0.801	0.645	0.207	0.075	0.042	0.064	0.479
ARITH. STD. DEV	0.706	0.869	0.259	0.109	0.056	0.079	0.547
GEOM. MEAN	0.552	0.342	0.157	0.050	0.035	0.040	0.251
1ST QUARTILE	0.355	0.170	0.050	0.015	0.010	0.015	0.092
2ND QUARTILE	0.600	0.350	0.150	0.035	0.025	0.030	0.300
3RD QUARTILE	1.035	0.750	0.245	0.085	0.052	0.085	0.635
VOL. WGT. MEAN	0.585	0.406	0.126	0.052	0.026	0.034	0.365

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

PERIOD OF REPORT : JAN 2,87 TO DEC 11,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	113	89	66	96	96	96	95
MAXIMUM	62.8	89.0	5.0	6.7	0.3162	0.3950	13.60
MINIMUM	0.0	0.5	3.4	3.5	0.0002	0.0138	0.10
RANGE	62.8	88.5	1.6	3.2	0.3160	0.3812	13.50
ARITH. MEAN	7.7	35.8	4.1	4.3	0.0804	0.1121	3.44
ARITH. STD. DEV	10.2	25.6	0.4	0.5	0.0709	0.0816	2.82
GEOM. MEAN	3.3	25.9	4.0	4.3	0.0492	0.0859	2.33
1ST QUARTILE	1.4	15.0	3.7	3.9	0.0235	0.0486	1.27
2ND QUARTILE	3.9	26.5	4.0	4.3	0.0556	0.0854	2.25
3RD QUARTILE	9.1	55.4	4.4	4.6	0.1230	0.1525	5.40
VOL. WGT. MEAN	******	29.0	******	******	0.0664	0.0944	2.95

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	94	91	90	91	91	91	95
MAXIMUM	3.000	1.860	1.860	0.285	0.150	0.885	1.750
MINIMUM	0.010	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	2.990	1.860	1.860	0.285	0.150	0.885	1.750
ARITH. MEAN	0.743	0.418	0.285	0.047	0.029	0.056	0.252
ARITH. STD. DEV	0.694	0.444	0.319	0.058	0.030	0.100	0.333
GEOM. MEAN	0.468	0.265	0.192	0.035	0.043	0.042	0.156
1ST QUARTILE	0.250	0.100	0.100	0.010	0.010	0.015	0.015
2ND QUARTILE	0.565	0.230	0.170	0.022	0.020	0.030	0.165
3RD QUARTILE	0.985	0.560	0.340	0.055	0.040	0.060	0.360
VOL. WGT. MEAN	0.522	0.279	0.208	0.032	0.027	0.037	0.217

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
SUMMARY STATISTICS OF CONCENTRATION

STATION =DANSON AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES :	78.0	78	78	78	78	78	78
MAXIMUM :	55.0	95.57	.	7.20	11.20	1.29	1.46
MINIMUM :	0.1	1.00	.	3.69	0.10	0.02	0.00
ARITH. MEAN :	7.3	13.45	.	5.19	1.57	0.31	0.31
ARITH. STD. DEV :	9.2	12.88	.	0.74	1.65	0.28	0.37
GEOM. MEAN :	7.3	10.43	.	5.14	1.10	0.22	0.20
1ST QUARTILE :	1.5	7.15	.	4.71	0.70	0.12	0.06
2ND QUARTILE :	4.3	10.00	.	4.98	1.10	0.23	0.18
3RD QUARTILE :	9.1	16.00	.	5.53	1.90	0.41	0.46
VOL. WGT. MEAN :	8.2	10.69	.	5.18	1.26	0.23	0.20
MISSING VALUES :	2.0	15	78	16	15	15	19

	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREE+ LAB UG/L
# OF SAMPLES :	78	78	78	78	78	78	78.00
MAXIMUM :	0.72	0.250	0.820	0.410	3.750	243.00	204.17
MINIMUM :	0.00	0.000	0.000	0.005	0.000	15.30	0.06
ARITH. MEAN :	0.11	0.049	0.067	0.075	0.339	38.19	16.85
ARITH. STD. DEV :	0.12	0.058	0.128	0.086	0.546	30.46	28.20
GEOM. MEAN :	0.09	0.028	0.033	0.046	0.157	33.05	16.85
1ST QUARTILE :	0.04	0.010	0.015	0.020	0.060	24.07	2.96
2ND QUARTILE :	0.08	0.020	0.025	0.045	0.157	31.75	10.35
3RD QUARTILE :	0.14	0.072	0.067	0.097	0.402	40.52	19.28
VOL. WGT. MEAN :	0.09	0.031	0.054	0.050	0.283	34.83	25.70
MISSING VALUES :	15	18	17	17	16	16	16.00

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AEROCHEM #08

PERIOD OF REPORT : JAN 6,87 TO DEC 28,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	159	137	86	141	141	141	142
MAXIMUM	24.6	100.0	6.6	7.3	0.5129	0.6220	19.30
MINIMUM	0.0	2.5	3.3	3.3	0.0001	0.0120	0.20
RANGE	24.6	97.5	3.3	4.0	0.5128	0.6100	19.10
ARITH. MEAN	4.3	28.8	4.3	4.5	0.0671	0.0909	3.12
ARITH. STD. DEV	5.2	20.3	0.4	0.6	0.0801	0.0865	3.29
GEOM. MEAN	2.0	22.0	4.3	4.4	0.0347	0.0676	1.99
1ST QUARTILE	0.8	12.8	4.1	4.1	0.0202	0.0395	0.92
2ND QUARTILE	2.3	25.1	4.3	4.3	0.0484	0.0691	2.10
3RD QUARTILE	5.6	39.1	4.6	4.7	0.0767	0.1035	3.85
VOL. WGT. MEAN	******	29.3	******	******	0.0605	0.0847	2.91

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	142	134	142	134	134	134	138
MAXIMUM	4.950	2.560	2.700	0.540	0.275	1.750	2.700
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	4.950	2.560	2.700	0.540	0.275	1.750	2.700
ARITH. MEAN	0.717	0.362	0.240	0.055	0.053	0.095	0.408
ARITH. STD. DEV	0.703	0.444	0.353	0.081	0.054	0.193	0.469
GEOM. MEAN	0.474	0.239	0.156	0.037	0.047	0.057	0.225
1ST QUARTILE	0.250	0.100	0.080	0.010	0.015	0.030	0.082
2ND QUARTILE	0.540	0.200	0.150	0.025	0.035	0.050	0.257
3RD QUARTILE	0.985	0.420	0.275	0.060	0.070	0.095	0.532
VOL. WGT. MEAN	0.610	0.276	0.188	0.039	0.038	0.086	0.376

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
SUMMARY STATISTICS OF CONCENTRATION

STATION -FERNBERG AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES :	136.0	136	136	136	136	136	136
MAXIMUM :	69.2	95.04	.	7.52	9.80	1.93	2.80
MINIMUM :	0.1	0.50	.	3.67	0.00	0.02	0.00
ARITH. MEAN :	5.1	13.46	.	5.22	1.42	0.32	0.25
ARITH. STD. DEV :	9.9	15.18	.	0.75	1.52	0.31	0.40
GEOM. MEAN :	5.1	9.29	.	5.16	0.98	0.21	0.14
1ST QUARTILE :	0.3	5.50	.	4.81	0.50	0.12	0.05
2ND QUARTILE :	1.8	9.45	.	5.14	0.95	0.23	0.12
3RD QUARTILE :	5.8	14.85	.	5.53	1.71	0.40	0.36
VOL. WGT. MEAN :	3.2	9.56	.	5.40	1.25	0.25	0.18
MISSING VALUES :	9.0	42	136	45	42	42	53

	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L
# OF SAMPLES :	136	136	136	136	136	136	136.00
MAXIMUM :	0.58	0.510	0.295	0.230	2.900	252.00	213.80
MINIMUM :	0.00	0.000	0.000	0.000	0.000	15.00	0.03
ARITH. MEAN :	0.09	0.046	0.036	0.040	0.339	37.57	18.61
ARITH. STD. DEV :	0.10	0.080	0.049	0.050	0.442	36.81	35.15
GEOM. MEAN :	0.08	0.028	0.025	0.030	0.192	30.25	18.61
1ST QUARTILE :	0.04	0.010	0.015	0.012	0.065	20.80	2.95
2ND QUARTILE :	0.06	0.020	0.025	0.025	0.230	25.80	7.24
3RD QUARTILE :	0.10	0.050	0.035	0.045	0.450	37.25	15.49
VOL. WGT. MEAN :	0.06	0.032	0.028	0.024	0.354	27.81	56.23
MISSING VALUES :	42	53	56	55	43	46	45.00

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHEM #02

PERIOD OF REPORT : JAN 1,87 TO DEC 29,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	115	101	58	106	106	105	104
MAXIMUM	73.1	100.0	6.7	8.2	0.3236	0.4290	20.00
MINIMUM	0.4	0.5	3.5	3.5	0.0000	0.0012	0.30
RANGE	72.7	99.5	3.2	4.8	0.3236	0.4278	19.70
ARITH. MEAN	6.2	30.0	4.4	5.0	0.0459	0.0711	4.06
ARITH. STD. DEV	8.8	20.4	0.8	1.1	0.0576	0.0657	3.71
GEOM. MEAN	3.4	22.5	4.3	4.9	0.0093	0.0493	2.83
1ST QUARTILE	1.4	12.8	3.8	4.1	0.0013	0.0234	1.57
2ND QUARTILE	3.1	27.1	4.1	4.5	0.0320	0.0515	3.02
3RD QUARTILE	7.7	41.3	4.7	5.8	0.0708	0.1000	5.30
VOL. WGT. MEAN	******	26.0	******	******	0.0445	0.0697	3.11

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	103	100	104	100	99	102	97
MAXIMUM	5.300	7.400	2.100	1.230	1.400	1.270	2.830
MINIMUM	0.000	0.040	0.030	0.010	0.015	0.005	0.000
RANGE	5.300	7.360	2.070	1.220	1.385	1.265	2.830
ARITH. MEAN	0.784	0.888	0.430	0.155	0.165	0.157	0.547
ARITH. STD. DEV	0.770	1.171	0.402	0.214	0.239	0.186	0.458
GEOM. MEAN	0.571	0.498	0.304	0.085	0.095	0.093	0.401
1ST QUARTILE	0.325	0.220	0.150	0.035	0.045	0.040	0.207
2ND QUARTILE	0.655	0.530	0.295	0.075	0.085	0.090	0.430
3RD QUARTILE	0.910	1.040	0.510	0.178	0.170	0.230	0.700
VOL. WGT. MEAN	0.531	0.473	0.268	0.082	0.122	0.087	0.439

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
****** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEM #01

PERIOD OF REPORT : JAN 1,87 TO DEC 31,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	134	110	51	113	113	113	114
MAXIMUM	38.0	99.0	6.7	7.4	0.3020	0.3350	22.00
MINIMUM	0.1	1.0	3.5	3.5	0.0000	0.0156	0.25
RANGE	37.9	98.0	3.2	3.8	0.3020	0.3194	21.75
ARITH. MEAN	5.1	34.6	4.2	4.5	0.0653	0.0909	4.12
ARITH. STD. DEV	6.8	22.8	0.7	0.8	0.0616	0.0670	3.57
GEOM. MEAN	2.3	26.0	4.2	4.5	0.0286	0.0699	2.89
1ST QUARTILE	0.8	17.5	3.8	4.0	0.0166	0.0407	1.85
2ND QUARTILE	2.4	29.6	4.0	4.3	0.0490	0.0700	2.90
3RD QUARTILE	6.3	47.0	4.4	4.7	0.0923	0.1180	5.22
VOL. WGT. MEAN	******	31.0	******	******	0.0628	0.0843	3.33

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	113	107	114	107	105	107	112
MAXIMUM	6.200	3.760	1.850	0.805	1.300	0.620	3.850
MINIMUM	0.010	0.000	0.010	0.000	0.000	0.000	0.020
RANGE	6.190	3.760	1.840	0.805	1.300	0.620	3.830
ARITH. MEAN	0.842	0.612	0.316	0.107	0.073	0.090	0.609
ARITH. STD. DEV	0.782	0.750	0.285	0.141	0.138	0.114	0.589
GEOM. MEAN	0.583	0.334	0.220	0.061	0.055	0.057	0.405
1ST QUARTILE	0.365	0.120	0.130	0.025	0.020	0.025	0.225
2ND QUARTILE	0.670	0.330	0.235	0.052	0.040	0.050	0.442
3RD QUARTILE	1.050	0.780	0.410	0.125	0.085	0.100	0.793
VOL. WGT. MEAN	0.584	0.319	0.193	0.055	0.041	0.046	0.426

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHEM 807

PERIOD OF REPORT : JAN 6,87 TO DEC 26,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	133	115	80	120	120	119	119
MAXIMUM	27.2	91.0	6.7	7.4	0.3715	0.4560	18.00
MINIMUM	0.0	2.0	3.5	3.4	0.0000	0.0167	0.15
RANGE	27.2	89.0	3.2	4.0	0.3715	0.4393	17.85
ARITH. MEAN	5.2	26.1	4.4	4.7	0.0574	0.0803	2.97
ARITH. STD. DEV	6.1	20.5	0.6	0.8	0.0705	0.0770	3.20
GEOM. MEAN	2.2	19.0	4.4	4.6	0.0211	0.0580	1.84
1ST QUARTILE	1.0	10.1	4.1	4.1	0.0107	0.0300	0.90
2ND QUARTILE	2.9	20.0	4.4	4.5	0.0339	0.0576	1.92
3RD QUARTILE	6.7	36.4	4.7	5.0	0.0708	0.0967	3.88
VOL. WGT. MEAN	******	26.5	******	******	0.0547	0.0778	2.68

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	119	117	118	117	117	117	117
MAXIMUM	3.150	3.600	0.820	0.725	0.320	0.440	2.550
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	3.150	3.600	0.820	0.725	0.320	0.440	2.550
ARITH. MEAN	0.658	0.331	0.187	0.050	0.060	0.063	0.481
ARITH. STD. DEV	0.603	0.483	0.179	0.086	0.059	0.066	0.523
GEOM. MEAN	0.451	0.180	0.172	0.036	0.045	0.046	0.269
1ST QUARTILE	0.235	0.080	0.055	0.010	0.022	0.025	0.137
2ND QUARTILE	0.510	0.170	0.140	0.025	0.045	0.040	0.303
3RD QUARTILE	0.910	0.370	0.250	0.050	0.067	0.080	0.630
VOL. WGT. MEAN	0.534	0.240	0.136	0.036	0.040	0.038	0.361

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

PERIOD OF REPORT : JAN 1,87 TO DEC 29,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	148	124	73	129	129	128	130
MAXIMUM	38.5	84.8	6.9	7.6	0.3890	0.4310	24.00
MINIMUM	0.1	0.5	3.5	3.4	0.0000	0.0106	0.10
RANGE	38.4	84.3	3.4	4.2	0.3890	0.4204	23.90
ARITH. MEAN	5.9	27.8	4.5	4.9	0.0506	0.0757	3.50
ARITH. STD. DEV	7.5	19.2	0.8	1.0	0.0670	0.0757	3.49
GEOM. MEAN	2.7	21.4	4.4	4.8	0.0126	0.0527	2.43
1ST QUARTILE	1.2	14.0	3.9	4.2	0.0039	0.0238	1.47
2ND QUARTILE	3.0	22.9	4.2	4.5	0.0302	0.0558	2.32
3RD QUARTILE	7.3	36.7	4.6	5.3	0.0639	0.0900	4.22
VOL. WGT. MEAN	******	27.1	******	******	0.0492	0.0725	3.18

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	130	123	130	123	124	124	127
MAXIMUM	6.150	3.940	1.650	0.800	0.620	0.725	2.750
MINIMUM	0.010	0.020	0.010	0.000	0.000	0.005	0.010
RANGE	6.140	3.920	1.640	0.800	0.620	0.720	2.740
ARITH. MEAN	0.721	0.649	0.258	0.121	0.056	0.096	0.565
ARITH. STD. DEV	0.788	0.694	0.255	0.148	0.079	0.122	0.473
GEOM. MEAN	0.501	0.393	0.173	0.073	0.042	0.057	0.391
1ST QUARTILE	0.330	0.220	0.105	0.030	0.020	0.030	0.245
2ND QUARTILE	0.535	0.380	0.180	0.067	0.035	0.050	0.450
3RD QUARTILE	0.825	0.880	0.290	0.140	0.060	0.105	0.732
VOL. WGT. MEAN	0.520	0.443	0.163	0.080	0.032	0.047	0.438

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/AEROCHEM #14

PERIOD OF REPORT : JAN 1,87 TO DEC 31,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES :	79	66	0	65	65	66	64
MAXIMUM :	47.0	53.4	******	7.2	0.1230	0.1480	6.65
MINIMUM :	0.1	2.0	******	3.9	0.0001	0.0128	0.00
RANGE :	46.9	51.4	******	3.3	0.1230	0.1352	6.65
ARITH. MEAN :	6.8	10.9	******	5.2	0.0132	0.0325	1.22
ARITH. STD. DEV :	7.9	8.3	******	0.7	0.0174	0.0181	1.02
GEOM. MEAN :	3.4	8.8	******	5.2	0.0062	0.0298	0.97
1ST QUARTILE :	2.6	5.8	******	4.8	0.0041	0.0224	0.57
2ND QUARTILE :	4.3	7.9	******	5.1	0.0080	0.0288	0.92
3RD QUARTILE :	7.3	14.1	******	5.4	0.0153	0.0355	1.55
VOL. WGT. MEAN :	******	9.3	******	******	0.0118	0.0308	1.07

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES :	66	61	66	61	61	61	65
MAXIMUM :	1.580	2.340	0.370	0.265	0.670	0.250	2.000
MINIMUM :	0.030	0.000	0.000	0.000	0.000	0.000	0.000
RANGE :	1.550	2.340	0.370	0.265	0.670	0.250	2.000
ARITH. MEAN :	0.308	0.293	0.095	0.050	0.065	0.049	0.293
ARITH. STD. DEV :	0.283	0.395	0.082	0.068	0.111	0.051	0.336
GEOM. MEAN :	0.212	0.174	0.089	0.039	0.038	0.041	0.164
1ST QUARTILE :	0.120	0.070	0.040	0.010	0.020	0.015	0.047
2ND QUARTILE :	0.220	0.170	0.070	0.025	0.030	0.030	0.175
3RD QUARTILE :	0.395	0.280	0.110	0.047	0.045	0.057	0.420
VOL. WGT. MEAN :	0.243	0.224	0.072	0.037	0.045	0.032	0.240

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/AEROCHEM #10

PERIOD OF REPORT : JAN 2,87 TO DEC 25,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	71	60	42	64	64	64	63
MAXIMUM	68.2	100.0	5.6	6.7	0.3090	0.3200	16.10
MINIMUM	0.2	5.0	3.5	3.5	0.0002	0.0206	0.30
RANGE	68.0	95.0	2.1	3.2	0.3088	0.2994	15.80
ARITH. MEAN	10.6	34.6	4.2	4.4	0.0718	0.1039	3.92
ARITH. STD. DEV	11.2	24.1	0.5	0.6	0.0659	0.0786	3.20
GEOM. MEAN	6.2	26.6	4.2	4.3	0.0416	0.0800	2.84
1ST QUARTILE	4.0	15.0	3.9	4.1	0.0237	0.0444	1.50
2ND QUARTILE	6.9	27.8	4.3	4.3	0.0507	0.0770	2.82
3RD QUARTILE	13.4	49.3	4.5	4.6	0.0891	0.1325	5.23
VOL. WGT. MEAN	******	27.1	******	******	0.0538	0.0850	2.76

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	64	61	64	61	60	61	64
MAXIMUM	2.950	4.280	5.870	0.350	0.615	0.330	2.150
MINIMUM	0.050	0.020	0.000	0.000	0.000	0.000	0.020
RANGE	2.900	4.260	5.870	0.350	0.615	0.330	2.130
ARITH. MEAN	0.853	0.433	0.320	0.056	0.072	0.059	0.599
ARITH. STD. DEV	0.689	0.672	0.724	0.075	0.096	0.069	0.509
GEOM. MEAN	0.598	0.201	0.189	0.038	0.058	0.048	0.377
1ST QUARTILE	0.310	0.075	0.100	0.015	0.015	0.015	0.175
2ND QUARTILE	0.655	0.180	0.200	0.030	0.042	0.035	0.462
3RD QUARTILE	1.125	0.500	0.335	0.065	0.098	0.067	0.900
VOL. WGT. MEAN	0.523	0.201	0.319	0.028	0.046	0.049	0.360

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
SUMMARY STATISTICS OF CONCENTRATION

STATION =RAVEN LAKE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES	182.0	182	182	182	182	182	182
MAXIMUM	35.2	92.20	6.480	7.11	16.50	3.57	3.06
MINIMUM	0.0	0.30	3.460	3.41	0.05	0.04	0.00
ARITH. MEAN	4.7	27.83	4.368	4.50	3.11	0.77	0.52
ARITH. STD. DEV	5.8	20.33	0.467	0.69	2.85	0.71	0.64
GEOM. MEAN	4.7	19.66	4.345	4.45	2.00	0.51	0.27
1ST QUARTILE	0.6	11.26	4.067	4.14	1.15	0.26	0.10
2ND QUARTILE	2.8	24.20	4.300	4.33	2.20	0.54	0.25
3RD QUARTILE	6.6	39.34	4.607	4.77	4.20	1.00	0.59
VOL. WGT. MEAN	10.2	24.63	4.405	4.54	2.65	0.56	0.36
MISSING VALUES	23.0	54	100	46	47	47	50

	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L
# OF SAMPLES	182	182	182	182	182	182	182.00
MAXIMUM	1.65	0.455	0.290	0.670	2.450	487.00	389.05
MINIMUM	0.00	0.000	0.000	0.000	0.000	15.50	0.08
ARITH. MEAN	0.23	0.063	0.045	0.089	0.447	91.85	65.57
ARITH. STD. DEV	0.26	0.091	0.048	0.110	0.467	88.68	77.61
GEOM. MEAN	0.16	0.035	0.032	0.054	0.232	67.50	65.57
1ST QUARTILE	0.07	0.010	0.015	0.025	0.085	39.35	17.08
2ND QUARTILE	0.15	0.030	0.032	0.050	0.310	70.75	46.77
3RD QUARTILE	0.26	0.070	0.050	0.111	0.636	100.82	72.03
VOL. WGT. MEAN	0.13	0.050	0.031	0.042	0.352	73.70	38.02
MISSING VALUES	47	49	48	48	48	46	46.00

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SUTTON/DAILY/AEROCHEM./7011

PERIOD OF REPORT : JAN 2,87 TO DEC 30,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	200	110	0	115	115	115	110
MAXIMUM	42.2	94.0	******	7.8	0.3388	0.4150	10.60
MINIMUM	0.1	2.0	******	3.5	0.0000	0.0112	0.15
RANGE	42.1	92.0	******	4.3	0.3388	0.4038	10.45
ARITH. MEAN	4.7	26.6	******	4.7	0.0505	0.0748	2.23
ARITH. STD. DEV	7.4	21.2	******	0.9	0.0499	0.0583	2.07
GEOM. MEAN	1.2	18.7	******	4.6	0.0203	0.0573	1.55
1ST QUARTILE	0.2	9.1	******	4.1	0.0132	0.0323	0.80
2ND QUARTILE	1.6	20.0	******	4.5	0.0331	0.0586	1.60
3RD QUARTILE	6.1	40.5	******	4.9	0.0794	0.1055	2.95
VOL. WGT. MEAN	******	22.8	******	******	0.0435	0.0661	2.10

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	111	98	111	98	98	98	110
MAXIMUM	2.420	2.260	0.900	0.385	1.030	1.640	3.500
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	2.420	2.260	0.900	0.385	1.030	1.640	3.500
ARITH. MEAN	0.584	0.262	0.182	0.032	0.042	0.107	0.341
ARITH. STD. DEV	0.507	0.375	0.185	0.057	0.110	0.229	0.468
GEOM. MEAN	0.389	0.192	0.167	0.036	0.039	0.045	0.176
1ST QUARTILE	0.165	0.060	0.060	0.005	0.005	0.015	0.057
2ND QUARTILE	0.380	0.140	0.110	0.015	0.020	0.040	0.200
3RD QUARTILE	0.945	0.300	0.270	0.030	0.035	0.110	0.400
VOL. WGT. MEAN	0.456	0.198	0.121	0.023	0.027	0.072	0.281

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
****** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY/AEROCHEM #04

PERIOD OF REPORT : JAN 1,87 TO DEC 25,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	137	115	69	119	119	118	118
MAXIMUM	44.8	98.0	6.4	7.6	0.4169	0.4870	15.00
MINIMUM	0.1	0.5	3.5	3.4	0.0000	0.0121	0.15
RANGE	44.7	97.5	2.9	4.2	0.4168	0.4749	14.85
ARITH. MEAN	6.0	26.2	4.4	4.9	0.0492	0.0725	3.14
ARITH. STD. DEV	7.7	21.2	0.6	1.0	0.0697	0.0750	2.86
GEOM. MEAN	2.9	18.3	4.3	4.8	0.0129	0.0500	2.12
1ST QUARTILE	1.4	12.3	4.0	4.2	0.0036	0.0216	1.25
2ND QUARTILE	3.0	19.9	4.3	4.5	0.0299	0.0518	2.38
3RD QUARTILE	6.9	35.6	4.6	5.4	0.0589	0.0862	3.82
VOL. WGT. MEAN	******	26.3	******	******	0.0483	0.0714	3.17

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	118	110	118	110	110	109	114
MAXIMUM	3.500	6.600	11.500	1.010	1.260	0.545	2.300
MINIMUM	0.010	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	3.490	6.600	11.500	1.010	1.260	0.545	2.300
ARITH. MEAN	0.627	0.534	0.299	0.094	0.046	0.069	0.534
ARITH. STD. DEV	0.582	0.857	1.058	0.152	0.123	0.078	0.426
GEOM. MEAN	0.426	0.311	0.150	0.053	0.036	0.047	0.398
1ST QUARTILE	0.300	0.130	0.095	0.020	0.015	0.025	0.230
2ND QUARTILE	0.500	0.280	0.160	0.045	0.025	0.040	0.457
3RD QUARTILE	0.825	0.600	0.260	0.105	0.045	0.077	0.710
VOL. WGT. MEAN	0.503	0.368	0.181	0.062	0.026	0.039	0.456

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WILMER/DAILY/AEROCHEM #9A

PERIOD OF REPORT : JAN 2,87 TO DEC 28,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	150	105	62	115	115	114	110
MAXIMUM	59.4	99.9	6.8	7.1	0.2692	0.3080	13.40
MINIMUM	0.2	3.0	3.5	3.6	0.0001	0.0155	0.10
RANGE	59.2	96.9	3.2	3.5	0.2691	0.2925	13.30
ARITH. MEAN	6.5	32.3	4.2	4.5	0.0649	0.0899	3.66
ARITH. STD. DEV	8.8	24.9	0.6	0.7	0.0665	0723	3.04
GEOM. MEAN	2.4	23.6	4.2	4.5	0.0305	0668	2.46
1ST QUARTILE	0.5	13.4	3.8	4.0	0.0153	0.0352	1.25
2ND QUARTILE	3.2	22.0	4.1	4.4	0.0372	0.0632	2.52
3RD QUARTILE	9.5	45.8	4.5	4.8	0.0966	0.1260	5.42
VOL. WGT. MEAN	******	27.6	******	******	0.0564	0.0800	3.01

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	110	112	109	112	112	112	115
MAXIMUM	3.300	3.380	0.810	0.470	0.750	0.611	2.200
MINIMUM	0.050	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	3.250	3.380	0.810	0.470	0.750	0.611	2.200
ARITH. MEAN	0.778	0.446	0.212	0.052	0.061	0.069	0.492
ARITH. STD. DEV	0.637	0.591	0.165	0.072	0.096	0.087	0.480
GEOM. MEAN	0.551	0.266	0.156	0.039	0.036	0.049	0.272
1ST QUARTILE	0.275	0.120	0.090	0.015	0.015	0.020	0.092
2ND QUARTILE	0.655	0.200	0.180	0.030	0.035	0.040	0.360
3RD QUARTILE	0.980	0.580	0.295	0.062	0.070	0.082	0.710
VOL. WGT. MEAN	0.560	0.220	0.161	0.029	0.032	0.043	0.343

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

PART IV

SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 6,87 TO DEC 25,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	579	497	337	521	521	520	518
MAXIMUM	300.1	100.0	6.9	7.4	0.6026	0.7650	30.20
MINIMUM	0.0	0.3	3.3	3.2	0.0000	0.0120	0.05
RANGE	300.1	99.7	3.5	4.2	0.6025	0.7530	30.15
ARITH. MEAN	5.5	28.0	4.4	4.5	0.0631	0.0902	3.18
ARITH. STD. DEV	13.6	20.4	0.5	0.7	0.0772	0.0915	3.40
GEOM. MEAN	2.2	20.8	4.3	4.5	0.0293	0.0656	2.01
1ST QUARTILE	0.9	12.0	4.1	4.1	0.0180	0.0383	1.00
2ND QUARTILE	3.0	24.5	4.3	4.4	0.0417	0.0658	2.20
3RD QUARTILE	6.6	38.6	4.6	4.7	0.0724	0.1020	4.05
VOL. WGT. MEAN	******	26.2	******	******	0.0532	0.0795	2.69

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	518	503	517	504	505	504	512
MAXIMUM	4.950	6.200	2.700	0.725	0.390	1.750	3.400
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	4.950	6.200	2.700	0.725	0.390	1.750	3.400
ARITH. MEAN	0.736	0.463	0.216	0.061	0.050	0.079	0.452
ARITH. STD. DEV	0.685	0.639	0.275	0.092	0.055	0.125	0.500
GEOM. MEAN	0.494	0.254	0.169	0.042	0.041	0.050	0.244
1ST QUARTILE	0.260	0.100	0.060	0.010	0.015	0.025	0.103
2ND QUARTILE	0.550	0.220	0.150	0.030	0.035	0.045	0.288
3RD QUARTILE	0.990	0.510	0.255	0.065	0.065	0.090	0.607
VOL. WGT. MEAN	0.528	0.316	0.205	0.043	0.038	0.095	0.339

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
****** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : DEC 31,86 TO DEC 19,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	282	223	0	218	218	218	221
MAXIMUM	100.8	95.6	******	7.5	0.2138	0.2520	11.20
MINIMUM	0.1	0.5	******	3.7	0.0000	0.0128	0.00
RANGE	100.7	95.1	******	3.9	0.2138	0.2392	11.20
ARITH. MEAN	6.8	12.7	******	5.2	0.0165	0.0362	1.40
ARITH. STD. DEV	12.2	12.8	******	0.7	0.0288	0.0303	1.44
GEOM. MEAN	2.3	9.4	******	5.2	0.0062	0.0309	1.01
1ST QUARTILE	0.8	6.0	******	4.8	0.0031	0.0223	0.55
2ND QUARTILE	3.4	9.0	******	5.1	0.0080	0.0282	0.97
3RD QUARTILE	7.5	14.9	******	5.5	0.0170	0.0378	1.70
VOL. WGT. MEAN	******	11.3	******	******	0.0105	0.0311	1.44

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	223	203	223	204	202	203	220
MAXIMUM	1.930	2.800	0.720	0.510	0.820	0.410	3.750
MINIMUM	0.020	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	1.910	2.800	0.720	0.510	0.820	0.410	3.750
ARITH. MEAN	0.314	0.280	0.098	0.048	0.054	0.053	0.326
ARITH. STD. DEV	0.292	0.391	0.104	0.070	0.099	0.065	0.445
GEOM. MEAN	0.214	0.182	0.104	0.038	0.034	0.044	0.184
1ST QUARTILE	0.120	0.060	0.040	0.010	0.015	0.015	0.062
2ND QUARTILE	0.230	0.140	0.070	0.025	0.025	0.030	0.183
3RD QUARTILE	0.400	0.340	0.115	0.055	0.045	0.060	0.430
VOL. WGT. MEAN	0.273	0.204	0.104	0.037	0.084	0.057	0.471

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 2,87 TO DEC 28,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES :	334	254	170	275	275	274	268
MAXIMUM :	68.2	100.0	6.8	7.1	0.3162	0.3950	16.10
MINIMUM :	0.0	0.5	3.4	3.5	0.0001	0.0138	0.10
RANGE :	68.2	99.5	3.4	3.6	0.3161	0.3812	16.00
ARITH. MEAN :	7.8	34.1	4.2	4.4	0.0719	0.1009	3.64
ARITH. STD. DEV :	9.9	24.9	0.5	0.6	0.0680	0.0775	3.00
GEOM. MEAN :	3.3	25.1	4.1	4.4	0.0388	0.0761	2.50
1ST QUARTILE :	1.1	14.1	3.8	4.0	0.0204	0.0411	1.35
2ND QUARTILE :	4.8	25.6	4.1	4.3	0.0468	0.0744	2.60
3RD QUARTILE :	10.6	49.8	4.5	4.7	0.1000	0.1340	5.42
VOL. WGT. MEAN :	******	27.9	******	******	0.0588	0.0861	2.91

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIM MG/L	POTASSIM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES :	268	264	263	264	263	264	274
MAXIMUM :	3.300	4.280	5.870	0.470	0.750	0.885	2.200
MINIMUM :	0.010	0.000	0.000	0.000	0.000	0.000	0.000
RANGE :	3.290	4.280	5.870	0.470	0.750	0.885	2.200
ARITH. MEAN :	0.784	0.433	0.263	0.051	0.053	0.062	0.434
ARITH. STD. DEV :	0.669	0.564	0.417	0.068	0.081	0.088	0.462
GEOM. MEAN :	0.531	0.249	0.176	0.037	0.043	0.046	0.242
1ST QUARTILE :	0.280	0.100	0.100	0.010	0.010	0.020	0.077
2ND QUARTILE :	0.620	0.220	0.190	0.027	0.030	0.035	0.277
3RD QUARTILE :	1.020	0.560	0.320	0.060	0.065	0.070	0.620
VOL. WGT. MEAN :	0.536	0.233	0.226	0.030	0.034	0.043	0.308

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1,87 TO DEC 25,87

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES :	534	450	251	467	467	464	466
MAXIMUM :	73.1	100.0	6.9	8.2	0.4169	0.4870	24.00
MINIMUM :	0.1	0.5	3.5	3.4	0.0000	0.0012	0.10
RANGE :	73.0	99.5	3.4	4.9	0.4169	0.4858	23.90
ARITH. MEAN :	5.8	29.5	4.4	4.8	0.0528	0.0775	3.69
ARITH. STD. DEV :	7.7	21.1	0.7	1.0	0.0646	0.0715	3.43
GEOM. MEAN :	2.8	21.8	4.3	4.7	0.0144	0.0549	2.53
1ST QUARTILE :	1.2	14.0	3.9	4.1	0.0042	0.0256	1.55
2ND QUARTILE :	3.0	24.0	4.2	4.4	0.0355	0.0603	2.57
3RD QUARTILE :	7.2	40.9	4.6	5.4	0.0741	0.1000	4.80
VOL. WGT. MEAN :	******	27.5	******	******	0.0510	0.0742	3.19

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES :	464	440	466	440	438	442	450
MAXIMUM :	6.200	7.400	11.500	1.230	1.400	1.270	3.850
MINIMUM :	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE :	6.200	7.400	11.500	1.230	1.400	1.270	3.850
ARITH. MEAN :	0.741	0.666	0.321	0.119	0.082	0.102	0.565
ARITH. STD. DEV :	0.737	0.882	0.599	0.165	0.158	0.133	0.490
GEOM. MEAN :	0.514	0.376	0.201	0.067	0.052	0.061	0.398
1ST QUARTILE :	0.340	0.160	0.120	0.027	0.020	0.030	0.233
2ND QUARTILE :	0.555	0.340	0.210	0.060	0.040	0.055	0.447
3RD QUARTILE :	0.890	0.840	0.380	0.140	0.085	0.120	0.732
VOL. WGT. MEAN :	0.532	0.401	0.197	0.070	0.052	0.054	0.440

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

PART V

SUMMARY STATISTICS OF WET DEPOSITION BY STATION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM #06

PERIOD OF REPORT : JAN 2, 87 TO DEC 25,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES :	128	89	124	124	122	122	120
MAXIMUM :	38.2	2.7949	2.7312	10.0800	132.98	21.780	21.708
MINIMUM :	0.1	0.0006	0.0002	0.0024	0.07	0.018	0.000
RANGE :	38.1	2.7942	2.7310	10.0776	132.90	21.762	21.708
ARITH. MEAN :	5.8	0.4432	0.2834	0.5156	16.53	3.504	2.471
ARITH. STD. DEV :	6.8	0.4918	0.4116	1.0233	23.89	4.196	3.877
GEOM. MEAN :	2.7	0.2388	0.0895	0.2015	6.73	1.680	1.078
1ST QUARTILE :	1.2	0.1431	0.0248	0.0628	1.89	0.626	0.461
2ND QUARTILE :	3.7	0.2601	0.1461	0.2523	9.27	1.486	1.153
3RD QUARTILE :	7.1	0.5925	0.3401	0.5807	18.65	4.170	2.327
VOL. WGT. MEAN :	********	0.3271	0.2767	0.5034	15.89	3.368	2.338

	CHLORIDE MG/M**2	MAGNESIM MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES :	122	120	120	119	123
MAXIMUM :	4.623	3.719	1.386	1.240	19.723
MINIMUM :	0.000	0.000	0.000	0.000	0.000
RANGE :	4.623	3.719	1.386	1.240	19.723
ARITH. MEAN :	0.756	0.319	0.158	0.207	2.169
ARITH. STD. DEV :	0.935	0.648	0.227	0.229	3.406
GEOM. MEAN :	0.416	0.135	0.096	0.125	0.749
1ST QUARTILE :	0.111	0.035	0.025	0.046	0.193
2ND QUARTILE :	0.456	0.110	0.095	0.115	1.112
3RD QUARTILE :	0.986	0.285	0.172	0.311	2.439
VOL. WGT. MEAN :	0.728	0.302	0.150	0.194	2.101

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM 811

PERIOD OF REPORT : JAN 2, 87 TO DEC 11,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	113	66	96	96	95	94	91
MAXIMUM	62.8	6.1441	2.9076	3.6527	151.89	19.550	24.840
MINIMUM	0.0	0.0577	0.0001	0.0041	0.03	0.015	0.000
RANGE	62.8	6.0864	2.9076	3.6485	151.86	19.535	24.840
ARITH. MEAN	7.7	0.9937	0.5211	0.7407	23.39	4.156	2.303
ARITH. STD. DEV	10.2	1.0417	0.6497	0.8180	28.65	4.146	3.595
GEOM. MEAN	3.3	0.6213	0.2029	0.3540	9.77	1.965	1.158
1ST QUARTILE	1.4	0.2741	0.0996	0.1753	3.80	0.828	0.436
2ND QUARTILE	3.9	0.6697	0.2640	0.4049	11.69	3.024	1.335
3RD QUARTILE	9.1	1.4714	0.6573	0.9499	31.97	5.680	2.386
VOL. WGT. MEAN	*******	0.7671	0.5147	0.7317	22.89	4.045	2.164

	CHLORIDE MG/M**2	MAGNESIM MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	90	91	91	91	95
MAXIMUM	20.700	4.830	2.772	3.515	14.091
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	20.700	4.830	2.772	3.515	14.091
ARITH. MEAN	1.641	0.265	0.220	0.303	1.715
ARITH. STD. DEV	2.762	0.559	0.422	0.477	2.554
GEOM. MEAN	0.736	0.137	0.162	0.175	0.604
1ST QUARTILE	0.309	0.047	0.011	0.051	0.048
2ND QUARTILE	0.754	0.108	0.107	0.157	0.776
3RD QUARTILE	1.918	0.278	0.217	0.336	2.188
VOL. WGT. MEAN	1.608	0.249	0.206	0.284	1.678

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
SUMMARY STATISTICS OF DEPOSITION

STATION=DAWSON AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES :	78.0	78	78	78	78	78
MAXIMUM :	55.0	71.50	8.25	13.72	7.02	2.303
MINIMUM :	0.1	0.12	0.02	0.00	0.00	0.000
ARITH. MEAN :	7.3	10.72	1.99	1.78	0.76	0.277
ARITH. STD. DEV :	9.2	12.11	1.84	2.25	1.22	0.354
GEOM. MEAN :	3.3	5.78	1.13	1.12	0.46	0.154
1ST QUARTILE :	1.5	3.30	0.59	0.42	0.18	0.061
2ND QUARTILE :	4.3	6.88	1.46	1.32	0.34	0.195
3RD QUARTILE :	9.1	14.56	2.85	2.34	0.87	0.405
VOL. WGT. MEAN :	.	8.92	1.66	1.40	0.63	0.222
MISSING VALUES :	2.0	15	15	19	15	18

	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREE H+ LAB UG/M**2
# OF SAMPLES :	78	78	78	78	78.00
MAXIMUM :	7.975	2.750	26.250	1490.50	581.24
MINIMUM :	0.000	0.025	0.000	11.72	0.29
ARITH. MEAN :	0.471	0.438	2.443	298.78	114.90
ARITH. STD. DEV :	1.231	0.516	4.425	315.27	144.42
GEOM. MEAN :	0.189	0.258	0.869	174.43	34.08
1ST QUARTILE :	0.059	0.127	0.305	78.73	8.80
2ND QUARTILE :	0.189	0.228	0.993	176.98	47.48
3RD QUARTILE :	0.369	0.569	2.643	406.39	152.65
VOL. WGT. MEAN :	0.380	0.354	2.006	246.87	210.77
MISSING VALUES :	17	17	16	16	16.00

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AEROCHEM #08

PERIOD OF REPORT : JAN 6, 87 TO DEC 28,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	159	86	141	141	142	142	134
MAXIMUM	24.6	2.8862	2.9535	3.3180	134.85	16.590	16.182
MINIMUM	0.0	0.0010	0.0001	0.0012	0.03	0.000	0.000
RANGE	24.6	2.8853	2.9533	3.3168	134.82	16.590	16.182
ARITH. MEAN	4.3	0.4470	0.2928	0.4090	14.00	2.930	1.399
ARITH. STD. DEV	5.2	0.5424	0.4431	0.5466	21.10	3.399	2.197
GEOM. MEAN	2.0	0.2468	0.0948	0.1816	5.32	1.273	0.654
1ST QUARTILE	0.8	0.1201	0.0409	0.0803	1.88	0.461	0.260
2ND QUARTILE	2.3	0.3061	0.1390	0.2269	7.03	2.005	0.686
3RD QUARTILE	5.6	0.5634	0.3599	0.4793	15.49	3.927	1.580
VOL. WGT. MEAN	********	0.3857	0.2614	0.3657	12.59	2.633	1.194

	CHLORIDE MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	142	134	134	134	138
MAXIMUM	12.690	2.371	1.392	12.276	19.520
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	12.690	2.371	1.392	12.276	19.520
ARITH. MEAN	0.903	0.197	0.194	0.433	1.854
ARITH. STD. DEV	1.500	0.362	0.242	1.356	2.862
GEOM. MEAN	0.398	0.094	0.126	0.162	0.645
1ST QUARTILE	0.131	0.024	0.038	0.066	0.174
2ND QUARTILE	0.448	0.085	0.111	0.140	0.779
3RD QUARTILE	1.132	0.185	0.236	0.294	2.550
VOL. WGT. MEAN	0.812	0.168	0.165	0.370	1.625

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
SUMMARY STATISTICS OF DEPOSITION

STATION=FERNBERG AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES :	136.0	136	136	136	136	136
MAXIMUM :	69.2	117.64	27.68	24.91	5.54	4.152
MINIMUM :	0.1	0.00	0.01	0.00	0.00	0.000
ARITH. MEAN :	5.1	7.30	1.45	1.18	0.35	0.208
ARITH. STD. DEV :	9.9	17.12	3.19	2.99	0.72	0.508
GEOM. MEAN :	1.4	2.52	0.53	0.39	0.17	0.082
1ST QUARTILE :	0.3	0.90	0.24	0.10	0.03	0.017
2ND QUARTILE :	1.8	3.05	0.70	0.36	0.13	0.086
3RD QUARTILE :	5.8	6.99	1.48	1.44	0.35	0.202
VOL. WGT. MEAN :	.	5.96	1.18	0.87	0.28	0.153
MISSING VALUES :	9.0	42	42	53	42	53

	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREE H+ LAB UG/M**2
# OF SAMPLES :	136	136	136	136	136.00
MAXIMUM :	3.114	2.422	44.980	1773.20	470.32
MINIMUM :	0.000	0.000	0.000	1.67	0.01
ARITH. MEAN :	0.187	0.159	2.082	168.60	55.64
ARITH. STD. DEV :	0.393	0.343	5.763	245.10	81.51
GEOM. MEAN :	0.080	0.079	0.511	79.15	15.78
1ST QUARTILE :	0.030	0.030	0.089	31.20	5.64
2ND QUARTILE :	0.090	0.070	0.618	106.96	20.52
3RD QUARTILE :	0.200	0.159	1.561	217.65	73.33
VOL. WGT. MEAN :	0.134	0.114	1.691	132.82	179.95
MISSING VALUES :	56	55	43	46	45.00

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHEM #02

PERIOD OF REPORT : JAN 1, 87 TO DEC 29,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES :	115	58	106	105	104	103	100
MAXIMUM :	73.1	10.5662	3.1183	5.2193	197.37	32.895	18.048
MINIMUM :	0.4	0.0005	0.0000	0.0010	0.50	0.000	0.144
RANGE :	72.7	10.5657	3.1183	5.2184	196.87	32.895	17.904
ARITH. MEAN :	6.2	0.9643	0.2710	0.4281	18.70	3.215	2.860
ARITH. STD. DEV :	8.8	1.6737	0.4693	0.6886	25.93	3.937	3.079
GEOM. MEAN :	3.4	0.2652	0.0315	0.1695	9.47	1.906	1.705
1ST QUARTILE :	1.4	0.0758	0.0035	0.0580	4.03	1.071	0.928
2ND QUARTILE :	3.1	0.3917	0.0843	0.1810	10.78	2.020	1.701
3RD QUARTILE :	7.7	1.1965	0.3229	0.5062	24.35	4.066	3.464
VOL. WGT. MEAN :	*******	0.6133	0.2742	0.4297	19.19	3.271	2.913

	CHLORIDE MG/M**2	MAGNESIM MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES :	104	100	99	102	97
MAXIMUM :	17.654	2.538	12.768	8.439	42.033
MINIMUM :	0.108	0.024	0.020	0.031	0.000
RANGE :	17.546	2.514	12.748	8.408	42.033
ARITH. MEAN :	1.609	0.494	0.735	0.534	2.789
ARITH. STD. DEV :	2.052	0.547	1.623	0.903	4.743
GEOM. MEAN :	1.019	0.290	0.323	0.320	1.434
1ST QUARTILE :	0.542	0.143	0.148	0.151	0.740
2ND QUARTILE :	1.125	0.296	0.275	0.323	1.532
3RD QUARTILE :	2.037	0.580	0.644	0.617	3.019
VOL. WGT. MEAN :	1.651	0.503	0.751	0.539	2.707

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEM #01

PERIOD OF REPORT : JAN 1, 87 TO DEC 31,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	134	51	113	113	114	113	107
MAXIMUM	38.0	8.9081	2.9605	3.8440	155.00	14.880	12.540
MINIMUM	0.1	0.0005	0.0001	0.0118	0.14	0.050	0.000
RANGE	37.9	8.9076	2.9604	3.8322	154.86	14.830	12.540
ARITH. MEAN	5.1	1.1267	0.3676	0.4871	19.30	3.415	1.955
ARITH. STD. DEV	6.8	1.5470	0.5210	0.6421	25.98	3.472	2.247
GEOM. MEAN	2.3	0.4200	0.0911	0.2168	9.06	1.861	1.110
1ST QUARTILE	0.8	0.1781	0.0253	0.0732	4.40	0.789	0.457
2ND QUARTILE	2.4	0.5412	0.1827	0.2409	10.35	1.960	1.225
3RD QUARTILE	6.3	1.3569	0.4707	0.6267	20.81	4.881	2.184
VOL. WGT. MEAN	*****	0.6079	0.3187	0.4277	16.86	2.959	1.619

	CHLORIDE MG/M**2	MAGNESIM MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	114	107	105	107	112
MAXIMUM	6.016	2.185	2.730	2.120	18.600
MINIMUM	0.024	0.000	0.000	0.000	0.014
RANGE	5.992	2.185	2.730	2.120	18.586
ARITH. MEAN	1.119	0.335	0.252	0.284	2.514
ARITH. STD. DEV	1.070	0.399	0.372	0.291	3.120
GEOM. MEAN	0.688	0.201	0.168	0.191	1.303
1ST QUARTILE	0.325	0.085	0.069	0.098	0.579
2ND QUARTILE	0.845	0.191	0.160	0.199	1.455
3RD QUARTILE	1.556	0.379	0.282	0.371	3.231
VOL. WGT. MEAN	0.978	0.277	0.206	0.235	2.162

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHEM #07

PERIOD OF REPORT : JAN 6, 87 TO DEC 26,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	133	80	120	119	119	119	117
MAXIMUM	27.2	4.0826	3.3958	4.4772	151.36	21.156	12.240
MINIMUM	0.0	0.0000	0.0000	0.0023	0.02	0.000	0.000
RANGE	27.2	4.0825	3.3957	4.4749	151.34	21.156	12.240
ARITH. MEAN	5.2	0.4760	0.3119	0.4469	15.41	3.069	1.399
ARITH. STD. DEV	6.1	0.6534	0.5525	0.6736	23.75	3.729	2.007
GEOM. MEAN	2.2	0.2022	0.0637	0.1771	5.62	1.402	0.557
1ST QUARTILE	1.0	0.1097	0.0313	0.0583	1.91	0.430	0.168
2ND QUARTILE	2.9	0.2419	0.1181	0.2128	7.22	1.978	0.632
3RD QUARTILE	6.7	0.5902	0.3155	0.5302	18.71	4.321	1.779
VOL. WGT. MEAN	*******	0.3189	0.2847	0.4050	13.96	2.781	1.249

	CHLORIDE MG/M**2	MAGNESIN MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	118	117	117	117	117
MAXIMUM	5.166	2.465	2.268	1.472	16.168
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	5.166	2.465	2.268	1.472	16.168
ARITH. MEAN	0.779	0.212	0.235	0.223	2.105
ARITH. STD. DEV	1.030	0.347	0.286	0.265	2.734
GEOM. MEAN	0.445	0.108	0.135	0.137	0.854
1ST QUARTILE	0.112	0.021	0.060	0.078	0.289
2ND QUARTILE	0.408	0.089	0.140	0.127	1.089
3RD QUARTILE	0.961	0.249	0.330	0.274	2.993
VOL. WGT. MEAN	0.708	0.189	0.210	0.199	1.881

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

PERIOD OF REPORT : JAN 1, 87 TO DEC 29,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	148	73	129	128	130	130	123
MAXIMUM	38.5	6.1018	4.2323	4.9266	204.30	19.200	25.984
MINIMUM	0.1	0.0006	0.0000	0.0083	0.14	0.015	0.066
RANGE	38.4	6.1012	4.2323	4.9183	204.16	19.185	25.918
ARITH. MEAN	5.9	0.7252	0.3150	0.4672	20.25	3.317	2.949
ARITH. STD. DEV	7.5	1.0061	0.5493	0.6922	31.74	3.632	4.069
GEOM. MEAN	2.7	0.2436	0.0447	0.1888	8.60	1.773	1.470
1ST QUARTILE	1.2	0.1495	0.0046	0.0679	3.16	0.986	0.614
2ND QUARTILE	3.0	0.4610	0.1437	0.2064	8.81	1.963	1.545
3RD QUARTILE	7.3	0.7520	0.3824	0.5737	22.24	4.852	3.195
VOL. WGT. MEAN	********	0.4391	0.2904	0.4278	18.75	3.071	2.616

	CHLORIDE MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	130	123	124	124	127
MAXIMUM	8.853	4.408	1.072	1.249	20.648
MINIMUM	0.015	0.000	0.000	0.025	0.008
RANGE	8.838	4.408	1.072	1.224	20.640
ARITH. MEAN	1.039	0.532	0.214	0.311	2.849
ARITH. STD. DEV	1.188	0.757	0.212	0.271	3.632
GEOM. MEAN	0.614	0.258	0.144	0.210	1.433
1ST QUARTILE	0.316	0.099	0.060	0.115	0.744
2ND QUARTILE	0.715	0.234	0.146	0.207	1.493
3RD QUARTILE	1.340	0.600	0.320	0.458	3.425
VOL. WGT. MEAN	0.962	0.471	0.191	0.278	2.585

******** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/AEROCHEM 914

PERIOD OF REPORT : JAN 1, 87 TO DEC 31,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	79	0	65	66	64	66	61
MAXIMUM	47.0	********	0.5436	1.1750	38.57	6.320	13.572
MINIMUM	0.1	********	0.0002	0.0140	0.00	0.054	0.000
RANGE	46.9	********	0.5434	1.1610	38.57	6.266	13.572
ARITH. MEAN	6.8	********	0.0875	0.2269	7.99	1.789	1.740
ARITH. STD. DEV	7.9	********	0.1147	0.2248	8.03	1.590	2.432
GEOM. MEAN	3.4	********	0.0323	0.1554	4.96	1.109	0.940
1ST QUARTILE	2.6	********	0.0179	0.0970	2.55	0.550	0.347
2ND QUARTILE	4.3	********	0.0499	0.1388	5.24	1.278	0.957
3RD QUARTILE	7.3	********	0.0972	0.2453	11.72	2.475	1.977
VOL. WGT. MEAN	*******	********	0.0803	0.2099	7.29	1.655	1.525

	CHLORIDE MG/M**2	MAGNESIM MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	66	61	61	61	65
MAXIMUM	2.350	2.703	2.929	0.900	8.930
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	2.350	2.703	2.929	0.900	8.930
ARITH. MEAN	0.531	0.288	0.349	0.249	1.780
ARITH. STD. DEV	0.475	0.416	0.458	0.204	1.925
GEOM. MEAN	0.422	0.194	0.211	0.215	0.830
1ST QUARTILE	0.194	0.058	0.087	0.103	0.300
2ND QUARTILE	0.436	0.172	0.260	0.172	1.284
3RD QUARTILE	0.735	0.338	0.420	0.328	2.299
VOL. WGT. MEAN	0.491	0.252	0.306	0.218	1.637

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/AEROCHEM #10

PERIOD OF REPORT : JAN 2, 87 TO DEC 25,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	71	42	64	64	63	64	61
MAXIMUM	68.2	2.4342	2.5340	6.3360	114.07	23.968	13.464
MINIMUM	0.2	0.0140	0.0002	0.0132	0.19	0.154	0.175
RANGE	68.0	2.4202	2.5338	6.3228	113.88	23.814	13.289
ARITH. MEAN	10.6	0.7586	0.6075	0.9597	31.56	5.904	2.378
ARITH. STD. DEV	11.2	0.6359	0.5849	1.0014	26.70	4.510	2.208
GEOM. MEAN	6.2	0.4528	0.2976	0.5718	20.89	4.280	1.630
1ST QUARTILE	4.0	0.1699	0.1517	0.2602	10.64	2.587	0.985
2ND QUARTILE	6.9	0.5480	0.3774	0.6693	20.89	4.613	1.948
3RD QUARTILE	13.4	1.2154	0.8872	1.4414	44.38	8.706	3.105
VOL. WGT. MEAN	*******	0.6042	0.5680	0.8974	29.10	5.521	2.127

	CHLORIDE MG/M**2	MAGNESIM MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	64	61	60	61	64
MAXIMUM	106.834	1.386	7.441	6.520	25.680
MINIMUM	0.000	0.000	0.000	0.000	0.044
RANGE	106.834	1.386	7.441	6.520	25.636
ARITH. MEAN	3.608	0.329	0.534	0.580	4.062
ARITH. STD. DEV	13.274	0.305	0.991	1.044	3.871
GEOM. MEAN	1.319	0.258	0.380	0.313	2.696
1ST QUARTILE	0.622	0.122	0.150	0.099	1.812
2ND QUARTILE	1.320	0.223	0.296	0.220	2.824
3RD QUARTILE	2.529	0.409	0.551	0.526	5.788
VOL. WGT. MEAN	3.374	0.294	0.482	0.519	3.798

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
SUMMARY STATISTICS OF DEPOSITION

STATION=RAVEN LAKE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES :	182.0	182	182	182	182	182
MAXIMUM :	35.2	144.20	20.60	28.43	4.94	4.738
MINIMUM :	0.0	0.08	0.01	0.00	0.00	0.000
ARITH. MEAN :	4.7	14.44	3.05	1.97	0.72	0.274
ARITH. STD. DEV :	5.8	22.41	3.61	4.07	0.92	0.678
GEOM. MEAN :	1.8	5.59	1.41	0.73	0.41	0.088
1ST QUARTILE :	0.6	1.92	0.54	0.24	0.13	0.020
2ND QUARTILE :	2.8	6.40	2.16	0.69	0.42	0.078
3RD QUARTILE :	6.6	16.74	3.79	1.74	0.90	0.203
VOL. WGT. MEAN :	.	10.99	2.32	1.48	0.55	0.206
MISSING VALUES :	23.0	47	47	50	47	49

	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB UG/M**2
# OF SAMPLES :	182	182	182	182	182.00
MAXIMUM :	2.575	1.342	22.248	3203.20	2692
MINIMUM :	0.000	0.000	0.000	2.17	0.04
ARITH. MEAN :	0.167	0.231	1.923	396.56	271.87
ARITH. STD. DEV :	0.299	0.235	3.161	477.03	372.48
GEOM. MEAN :	0.086	0.150	0.641	184.18	87.30
1ST QUARTILE :	0.033	0.079	0.206	69.72	34.91
2ND QUARTILE :	0.091	0.155	0.868	263.84	141.24
3RD QUARTILE :	0.174	0.296	2.234	470.95	345.22
VOL. WGT. MEAN :	0.127	0.175	1.458	305.00	387.79
MISSING VALUES :	48	48	48	46	46.00

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SUTTON/DAILY/AEROCHEM./7011

PERIOD OF REPORT : JAN 2, 87 TO DEC 30,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	200	0	115	115	110	111	98
MAXIMUM	42.2	********	2.0198	3.1186	130.82	19.720	26.668
MINIMUM	0.1	********	0.0000	0.0095	0.21	0.000	0.000
RANGE	42.1	********	2.0198	3.1091	130.61	19.720	26.668
ARITH. MEAN	4.7	********	0.2852	0.4327	14.21	3.062	1.387
ARITH. STD. DEV	7.4	********	0.4271	0.5854	22.58	4.144	2.980
GEOM. MEAN	1.2	********	0.0726	0.2043	5.94	1.472	0.684
1ST QUARTILE	0.2	********	0.0302	0.0733	2.24	0.591	0.224
2ND QUARTILE	1.6	********	0.1228	0.2122	6.61	1.553	0.637
3RD QUARTILE	6.1	********	0.2884	0.4694	14.42	3.156	1.210
VOL. WGT. MEAN	*******	********	0.2037	0.3090	9.84	2.132	0.927

	CHLORIDE MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	111	98	98	98	110
MAXIMUM	8.640	4.248	2.060	11.152	21.830
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	8.640	4.248	2.060	11.152	21.830
ARITH. MEAN	0.808	0.164	0.191	0.502	1.837
ARITH. STD. DEV	1.215	0.446	0.335	1.275	3.333
GEOM. MEAN	0.496	0.117	0.133	0.189	0.630
1ST QUARTILE	0.141	0.019	0.026	0.067	0.185
2ND QUARTILE	0.400	0.062	0.060	0.154	0.586
3RD QUARTILE	1.025	0.169	0.206	0.357	1.907
VOL. WGT. MEAN	0.567	0.109	0.128	0.336	1.316

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY/AEROCHEM #04

PERIOD OF REPORT : JAN 1, 87 TO DEC 25,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	137	69	119	118	118	118	110
MAXIMUM	44.8	6.0130	4.4477	5.4672	277.38	24.192	27.776
MINIMUM	0.1	0.0010	0.0000	0.0054	0.18	0.013	0.000
RANGE	44.7	6.0121	4.4477	5.4618	277.20	24.179	27.776
ARITH. MEAN	6.0	0.6868	0.3160	0.4677	20.89	3.312	2.486
ARITH. STD. DEV	7.7	1.0219	0.6024	0.7608	37.50	4.055	4.303
GEOM, MEAN	2.9	0.2593	0.0475	0.1839	7.94	1.595	1.114
1ST QUARTILE	1.4	0.1094	0.0104	0.0572	2.98	0.696	0.306
2ND QUARTILE	3.0	0.3992	0.1032	0.2164	8.91	1.832	1.070
3RD QUARTILE	6.9	0.8622	0.3338	0.5621	21.66	4.236	3.116
VOL. WGT. MEAN	*******	0.3931	0.2890	0.4267	18.95	3.006	2.202

	CHLORIDE MG/M**2	MAGNESIM MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	118	110	110	109	114
MAXIMUM	30.030	3.752	0.910	1.568	30.240
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	30.030	3.752	0.910	1.568	30.240
ARITH. MEAN	1.194	0.418	0.172	0.267	3.012
ARITH. STD. DEV	2.913	0.676	0.203	0.255	4.392
GEOM. MEAN	0.556	0.198	0.120	0.182	1.520
1ST QUARTILE	0.273	0.061	0.030	0.099	0.731
2ND QUARTILE	0.579	0.156	0.100	0.209	1.731
3RD QUARTILE	1.257	0.470	0.223	0.322	3.009
VOL. WGT. MEAN	1.084	0.370	0.153	0.235	2.730

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MILNER/DAILY/AEROCHEM 89A

PERIOD OF REPORT : JAN 2, 87 TO DEC 28,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	150	62	115	114	110	110	112
MAXIMUM	59.4	5.0731	4.6267	4.4280	165.60	21.600	15.048
MINIMUM	0.2	0.0002	0.0001	-0.0071	0.05	0.056	0.000
RANGE	59.2	5.0728	4.6266	4.4209	165.55	21.544	15.048
ARITH. MEAN	6.5	0.8385	0.4521	0.6461	23.29	4.336	1.806
ARITH. STD. DEV	8.8	0.8694	0.6219	0.7280	27.31	4.221	2.348
GEOM. MEAN	2.4	0.3901	0.1330	0.2956	10.94	2.446	1.063
1ST QUARTILE	0.5	0.1597	0.0398	0.1320	4.30	0.976	0.434
2ND QUARTILE	3.2	0.6277	0.2433	0.4054	13.97	2.812	1.190
3RD QUARTILE	9.5	1.1655	0.6762	0.9253	31.23	6.144	2.250
VOL. WGT. MEAN	********	0.5960	0.3645	0.5168	19.42	3.614	1.421

	CHLORIDE MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	109	112	112	112	115
MAXIMUM	10.692	1.692	2.700	6.480	18.860
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	10.692	1.692	2.700	6.480	18.860
ARITH. MEAN	1.247	0.236	0.262	0.354	2.746
ARITH. STD. DEV	1.696	0.306	0.338	0.721	3.383
GEOM. MEAN	0.653	0.151	0.158	0.208	1.186
1ST QUARTILE	0.284	0.045	0.082	0.100	0.432
2ND QUARTILE	0.755	0.136	0.168	0.209	1.638
3RD QUARTILE	1.349	0.279	0.319	0.337	3.701
VOL. WGT. MEAN	1.038	0.186	0.206	0.279	2.213

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

PART VI

SUMMARY STATISTICS OF WET DEPOSITION BY REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 6, 87 TO DEC 25,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	579	337	521	520	518	518	503
MAXIMUM	300.1	4.0826	3.3958	19.9266	645.22	33.011	78.026
MINIMUM	0.0	0.0000	0.0000	0.0012	0.02	0.000	0.000
RANGE	300.1	4.0825	3.3957	19.9254	645.20	33.011	78.026
ARITH. MEAN	5.5	0.4550	0.2895	0.4780	16.28	3.193	1.958
ARITH. STD. DEV	13.6	0.5366	0.4461	1.1060	35.79	3.946	4.673
GEOM. MEAN	2.2	0.2393	0.0835	0.1678	5.83	1.443	0.742
1ST QUARTILE	0.9	0.1323	0.0343	0.0675	1.92	0.507	0.260
2ND QUARTILE	3.0	0.2863	0.1337	0.2455	7.43	2.160	0.775
3RD QUARTILE	6.6	0.5872	0.3421	0.5116	17.41	3.998	1.905
VOL. WGT. MEAN	********	0.3238	0.2913	0.4350	14.74	2.891	1.729

	CHLORIDE MG/M**2	MAGNESIM MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	517	504	505	504	512
MAXIMUM	231.077	9.003	22.507	157.553	33.011
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	231.077	9.003	22.507	157.553	33.011
ARITH. MEAN	1.237	0.268	0.232	0.589	2.069
ARITH. STD. DEV	10.191	0.661	1.028	7.044	3.339
GEOM. MEAN	0.429	0.112	0.114	0.146	0.721
1ST QUARTILE	0.126	0.024	0.036	0.065	0.210
2ND QUARTILE	0.424	0.090	0.107	0.139	0.982
3RD QUARTILE	0.984	0.220	0.213	0.295	2.541
VOL. WGT. MEAN	1.123	0.237	0.206	0.520	1.856

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : DEC 31, 86 TO DEC 19,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	282	0	218	218	221	223	203
MAXIMUM	100.8	********	0.6074	3.5144	619.30	90.630	28.224
MINIMUM	0.1	********	0.0000	0.0017	0.00	0.015	0.000
RANGE	100.7	********	0.6074	3.5128	619.30	90.615	28.224
ARITH. MEAN	6.8	********	0.0846	0.2493	11.41	2.150	1.736
ARITH. STD. DEV	12.2	********	0.1199	0.3825	43.49	6.512	3.454
GEOM. MEAN	2.3	********	0.0249	0.1245	3.96	0.839	0.725
1ST QUARTILE	0.8	********	0.0077	0.0684	1.75	0.387	0.202
2ND QUARTILE	3.4	********	0.0379	0.1328	4.37	1.036	0.720
3RD QUARTILE	7.5	********	0.0999	0.2521	10.69	2.310	1.920
VOL. WGT. MEAN	*******	********	0.0721	0.2122	9.85	1.864	1.394

	CHLORIDE MG/M**2	MAGNESIM MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	223	204	202	203	220
MAXIMUM	72.504	7.552	82.574	30.210	377.625
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	72.504	7.552	82.574	30.210	377.625
ARITH. MEAN	0.820	0.314	0.718	0.485	3.751
ARITH. STD. DEV	4.887	0.785	5.831	2.435	25.685
GEOM. MEAN	0.335	0.150	0.152	0.175	0.717
1ST QUARTILE	0.100	0.030	0.052	0.064	0.182
2ND QUARTILE	0.263	0.129	0.152	0.151	0.911
3RD QUARTILE	0.600	0.321	0.338	0.320	2.315
VOL. WGT. MEAN	0.711	0.253	0.573	0.389	3.221

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 2, 87 TO DEC 28,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	334	170	275	274	268	268	264
MAXIMUM	68.2	6.1441	4.6267	6.3360	165.60	23.968	24.840
MINIMUM	0.0	0.0002	0.0001	0.0041	0.03	0.015	0.000
RANGE	68.2	6.1438	4.6266	6.3319	165.57	23.953	24.840
ARITH. MEAN	7.8	0.8790	0.5123	0.7525	25.27	4.647	2.110
ARITH. STD. DEV	9.9	0.8931	0.6241	0.8357	27.77	4.308	2.816
GEOM. MEAN	3.3	0.4849	0.1859	0.3674	12.23	2.589	1.209
1ST QUARTILE	1.1	0.2512	0.0931	0.1682	6.48	1.380	0.530
2ND QUARTILE	4.8	0.6231	0.2803	0.4588	15.76	3.396	1.355
3RD QUARTILE	10.6	1.2440	0.7545	1.1452	35.45	6.630	2.596
VOL. WGT. MEAN	*******	0.6533	0.4565	0.6683	22.61	4.163	1.810

	CHLORIDE MG/M**2	MAGNESIM MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	263	264	263	264	274
MAXIMUM	106.834	4.830	7.441	6.520	25.680
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	106.834	4.830	7.441	6.520	25.680
ARITH. MEAN	1.957	0.267	0.309	0.389	2.696
ARITH. STD. DEV	6.860	0.411	0.588	0.747	3.355
GEOM. MEAN	0.807	0.165	0.195	0.215	1.137
1ST QUARTILE	0.358	0.058	0.068	0.084	0.404
2ND QUARTILE	0.862	0.150	0.164	0.198	1.614
3RD QUARTILE	1.903	0.339	0.339	0.382	3.651
VOL. WGT. MEAN	1.752	0.229	0.266	0.334	2.394

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1, 87 TO DEC 25,87

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	534	251	467	464	466	464	440
MAXIMUM	73.1	10.5662	4.4477	5.4672	277.38	32.895	27.776
MINIMUM	0.1	0.0005	0.0000	0.0010	0.14	0.000	0.000
RANGE	73.0	10.5657	4.4477	5.4662	277.24	32.895	27.776
ARITH. MEAN	5.8	0.8515	0.3180	0.4633	19.83	3.317	2.572
ARITH. STD. DEV	7.7	1.3128	0.5392	0.6960	30.77	3.764	3.565
GEOM. MEAN	2.8	0.2823	0.0498	0.1893	8.72	1.775	1.325
1ST QUARTILE	1.2	0.1378	0.0081	0.0663	3.67	0.875	0.524
2ND QUARTILE	3.0	0.4357	0.1165	0.2032	9.72	1.902	1.320
3RD QUARTILE	7.2	0.9888	0.3877	0.5583	22.80	4.630	3.084
VOL. WGT. MEAN	*******	0.5292	0.2944	0.4283	18.43	3.071	2.314

	CHLORIDE MG/M**2	MAGNESIM MG/M**2	POTASSIM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	466	440	438	442	450
MAXIMUM	30.030	4.408	12.768	8.439	42.033
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	30.030	4.408	12.768	8.439	42.033
ARITH. MEAN	1.225	0.447	0.330	0.345	2.794
ARITH. STD. DEV	1.945	0.620	0.834	0.505	3.976
GEOM. MEAN	0.690	0.234	0.171	0.219	1.421
1ST QUARTILE	0.345	0.095	0.062	0.115	0.712
2ND QUARTILE	0.756	0.220	0.162	0.227	1.533
3RD QUARTILE	1.521	0.504	0.333	0.416	3.241
VOL. WGT. MEAN	1.139	0.402	0.297	0.310	2.541

****** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

PART VII

SUMMARY STATISTICS OF AIR CONCENTRATION BY STATION, REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AIR #11

PERIOD OF REPORT : DEC 31,86 TO DEC 31,87 PAGE : 1

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3	TOTL NO3 AS N UG/M**3
# OF SAMPLES	343.0	342.00	343.00	343.000	343.00	343.00
MAXIMUM	37.3	32.09	2.14	7.015	2.69	3.55
MINIMUM	0.0	0.02	0.00	0.000	0.00	0.00
RANGE	37.3	32.07	2.14	7.015	2.69	3.55
ARITH. MEAN	3.3	3.87	0.37	1.100	0.22	0.59
ARITH. STD. DEV	4.1	4.76	0.35	1.190	0.35	0.55
GEOM. MEAN	1.9	2.24	0.24	0.651	0.14	0.39
1ST QUARTILE	0.8	1.09	0.11	0.295	0.05	0.18
2ND QUARTILE	2.0	2.22	0.25	0.641	0.11	0.41
3RD QUARTILE	4.3	4.32	0.51	1.425	0.24	0.87

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AIR #08

PERIOD OF REPORT : DEC 31,86 TO DEC 31,87

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3	TOTL NO3 AS N UG/M**3
# OF SAMPLES :	333.0	343.00	344.00	342.000	344.00	344.00
MAXIMUM :	32.1	30.89	1.70	5.494	1.79	3.15
MINIMUM :	0.0	0.03	0.00	0.000	0.00	0.00
RANGE :	32.1	30.86	1.70	5.494	1.79	3.15
ARITH. MEAN :	3.1	3.34	0.27	0.756	0.08	0.35
ARITH. STD. DEV :	4.2	4.45	0.30	0.930	0.18	0.40
GEOM. MEAN :	1.6	1.81	0.17	0.396	0.07	0.19
1ST QUARTILE :	0.6	0.78	0.06	0.163	0.00	0.08
2ND QUARTILE :	1.7	1.85	0.14	0.382	0.02	0.18
3RD QUARTILE :	3.9	3.69	0.41	0.938	0.07	0.51

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY/AIR #16

PERIOD OF REPORT : DEC 31,86 TO DEC 31,87

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3	TOTL NO3 AS N UG/M**3
# OF SAMPLES :	361.0	360.00	360.00	361.000	361.00	360.00
MAXIMUM :	10.8	11.26	1.69	2.625	1.64	2.38
MINIMUM :	0.0	0.00	0.00	0.000	0.00	0.00
RANGE :	10.8	11.26	1.69	2.625	1.64	2.38
ARITH. MEAN :	0.9	1.48	0.14	0.398	0.07	0.21
ARITH. STD. DEV :	1.4	1.41	0.18	0.437	0.18	0.31
GEOM. MEAN :	0.6	1.05	0.11	0.267	0.08	0.12
1ST QUARTILE :	0.1	0.67	0.03	0.145	0.00	0.05
2ND QUARTILE :	0.4	1.05	0.08	0.252	0.02	0.11
3RD QUARTILE :	1.1	1.85	0.17	0.466	0.05	0.22

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : HIGH FALLS/DAILY/AIR

PERIOD OF REPORT : DEC 31,86 TO DEC 31,87

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3	TOTL NO3 AS N UG/M**3
# OF SAMPLES :	358.0	358.00	350.00	357.000	358.00	350.00
MAXIMUM :	241.4	24.38	1.73	4.320	0.69	1.77
MINIMUM :	0.0	0.00	0.00	0.004	0.00	0.00
RANGE :	241.4	24.38	1.73	4.316	0.69	1.77
ARITH. MEAN :	6.3	2.80	0.16	0.570	0.04	0.21
ARITH. STD. DEV :	18.3	3.39	0.23	0.695	0.09	0.28
GEOM. MEAN :	1.6	1.56	0.12	0.305	0.10	0.13
1ST QUARTILE :	0.4	0.77	0.03	0.151	0.00	0.05
2ND QUARTILE :	1.3	1.56	0.08	0.283	0.02	0.10
3RD QUARTILE :	4.2	3.48	0.19	0.690	0.04	0.25

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AIR #02

PERIOD OF REPORT : DEC 31,86 TO DEC 31,87 PAGE : 1

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3	TOTL NO3 AS N UG/M**3
# OF SAMPLES :	355.0	354.00	355.00	355.000	354.00	354.00
MAXIMUM :	56.4	43.73	2.40	9.704	3.24	4.36
MINIMUM :	0.0	0.00	0.00	0.000	0.00	0.00
RANGE :	56.4	43.73	2.40	9.704	3.24	4.36
ARITH. MEAN :	8.3	5.05	0.52	1.535	0.52	1.04
ARITH. STD. DEV :	7.8	5.24	0.47	1.440	0.56	0.77
GEOM. MEAN :	5.5	3.43	0.33	1.056	0.33	0.76
1ST QUARTILE :	3.2	1.88	0.16	0.556	0.14	0.43
2ND QUARTILE :	6.3	3.39	0.35	1.083	0.31	0.88
3RD QUARTILE :	10.8	5.98	0.77	2.148	0.69	1.48